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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Honorable Bill Bradley United States Senate

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Benefits And Limitations Of Economic Policy Responses To An Oil Supply Disruption

In 1982 Congress, concerned with the potential harmful economic effects of an oil supply disruption, passed the Energy Emergency Preparedness Act (EEPA). The EEPA required, among other things, the Secretary of Energy to analyze the effects of a substantial oil disruption and potential economic response policies.

In response to the EEPA requirement and subsequent congressional inquiries, the administration has continued to stress a policy of using the SPR and allowing the market to determine the price and allocation of crude oil while concluding that economy-wide response policies were inappropriate. In December 1984 the administration modified its position somewhat and began to focus on the possible use of such policies targeted to low-income households as the Low-income Home Energy Assistance Program and the Earned Income Tax Credit. However, as of July 1985, Department of Energy (DOE) officials told GAO that they do not plan to develop these programs as economic response policies.

Since Congress has shown a continuing concern about DOE's development of an economic response policy, GAO initiated a review of DOE's position and examined several response policies that have been proposed and considered by Congress and the administration. GAO's economic analysis indicates that several response policies (economy-wide or targeted) could offset, to varying degrees, some of the effects of an oil supply disruption, but involve trade-offs or limitations that are discussed in this report. From an administrative standpoint, a block grant policy may warrant advance legislation. Other potential policies such as changes in tax laws could probably be implemented relatively quickly and may not require advance legislation.

GAO/RCED-85-151
AUGUST 8, 1985

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-219494

The Honorable Bill Bradley
United States Senate

Dear Senator Bradley:

As arranged with your office, this report presents the final results of our review of economic response policies that could be used to help alleviate the effects of an oil supply disruption. Previously, on June 13, 1985, we provided your office with a briefing paper that discussed our preliminary findings on this subject.

This report, which is in the form of a briefing document supplemented by a narrative, presents information on: the development of DOE's views on the use of economic response policies including DOE's reports and testimony to the Congress in 1983 and 1984; and economic and administrative considerations of several response policies we analyzed that represent a range of the options that could be used during an oil supply disruption. The policies we analyzed were selected because they have been proposed or considered by the Congress or the administration.

Our analysis of these policies was designed to illustrate the general nature and direction of the policies and not to predict the actual outcomes or to identify a preferred economic response policy. Our analysis covered four response policies designed to affect the overall economy (economy-wide) and two response policies targeted to affect low-income households (targeted). The economy-wide policies were: a cut in personal income taxes, a reduction in employers' payroll taxes, a general increase in funding for a new block grant program to states, and a monetary policy that increased the money supply growth rate. The targeted policies were: an increase in funding for the Low-income Home Energy Assistance Program (LIHEAP) and an increase in the credit and/or an expansion in the eligibility of the Earned Income Tax Credit (EITC).

Results in Brief

Although DOE has analyzed several economy-wide response policies, its conclusion that such policies are inappropriate is not supported by its analysis. DOE concluded that these policies were inappropriate without demonstrating that a purely market approach, with existing fiscal and monetary policies, would work more effectively than economic response policies.

In addition, its analysis of targeted response policies remains incomplete because it has yet to identify solutions to the economic and administrative problems associated with the EITC and LIHEAP.

Our economic analysis indicates that several response policies (economy-wide or targeted) could offset, to varying degrees, some of the impacts of an oil supply disruption but would involve trade-offs or limitations. From an administrative standpoint, with the exception of block grants, it could take about 1 to 3 months to implement the fiscal policies once legislation has been passed. Block grants, however, appear to warrant advance legislation to be effective as an economic response policy because a significant amount of additional time may be required for state input and planning before implementation.

DOE's Economic Response Policy

In 1982 the Congress, concerned that a major oil supply disruption could cause considerable damage to the U.S. economy, passed the Energy Emergency Preparedness Act (EEPA). The Act required, among other things, the Secretary of Energy to analyze the effects of a substantial oil disruption on the U.S. economy and consumers. DOE's response to EEPA in reports and congressional testimony has been to state its commitment to allowing the market to determine the price and allocation of crude oil and petroleum products in the event of an oil disruption. DOE also plans to use the Strategic Petroleum Reserve (SPR) to moderate the effects of the disruption. Further, the administration stated that economy-wide fiscal[1] and monetary[2] economic response policies are inappropriate. The administration also stated that no new policies or programs should be prepared until a disruption actually occurs.

The Chairman of the House Committee on Government Operations on September 25, 1984, questioned whether sole reliance on the market to allocate petroleum would work without a policy to assist low-income individuals who would be hurt most by rising energy prices. In response, the Secretary of Energy stated in a

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[1]Fiscal policy aims at influencing the economy by changing federal taxes and government spending.

[2]Monetary policy aims at influencing the economy by affecting key financial variables such as the money supply and interest rates. The Federal Reserve carries out monetary policy primarily by buying and selling Treasury securities.

December 1984 letter that DOE was considering programs aimed at affecting only low-income households directly. DOE stated that the LIHEAP and the EITC appeared appropriate for an emergency response and that modifications to these programs would probably be more effective than creating a new program.

DOE has analyzed several economy-wide response policies, including changes to income taxes, federal block grants, and monetary policy. DOE's analysis of these policies indicates the trade-offs between their desirable and undesirable effects, such as improving general economic activity and lowering unemployment, but at the expense of higher inflation. Yet, DOE concluded that these policies were inappropriate without demonstrating that a purely market approach, with existing fiscal and monetary policies, would work more effectively than these policies. In addition, DOE's analysis of targeted response policies (LIHEAP and the EITC) remains incomplete. DOE has yet to resolve problems regarding the number of low-income households affected, the economic impact on affected low-income households, the administrative practicality, or program costs. Although it stated in December 1984 that it was considering modifying the LIHEAP and EITC for a low-income economic response program, as of July 1985, DOE does not plan to propose any changes to the Congress.

Economic Considerations of the Policies GAO Analyzed

Our analysis indicates that several economy-wide or targeted response policies could offset, to varying degrees, some of the effects of an oil supply disruption, but would involve trade-offs or limitations.[3] We found that these policies, with the exception of the payroll tax reduction, involved a trade-off between either reducing the recessionary effects of the disruption at the expense of higher inflation, or reducing the inflationary effects of the disruption at the expense of reduced

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[3]Our analysis was designed to show the net effects of a disruption and did not separately consider the effects of current excess oil capacity, drawing down private oil stocks or using the SPR. As our previous report entitled Evaluation of the Department of Energy's Plan to Sell Oil From the Strategic Petroleum Reserve (GAO/RCED-85-80, June 5, 1985) points out, the price effects of an oil disruption can be mitigated to some extent by drawing down the SPR. Also, the actual size of an oil disruption could push prices higher or lower than we had assumed and would influence the decision to use the SPR and/or other economic response policies.

economic growth. The payroll tax reduction did not show this trade-off during the first 2 years. This occurred because reduced payroll taxes offset rising energy costs at the point of production and were therefore more effective than other policies at offsetting the disruption's effects.

The analysis also showed that monetary policy (an increase in the money supply growth rate) reduced the recessionary impact of the disruption. Further, when the money supply was increased in combination with the fiscal policies, the effectiveness of the fiscal policies was improved. However, increasing the money supply may have long-term inflationary effects that we did not assess in our short-term (3-year) analysis. Thus, while our analysis indicates that several response policies could offset some of the effects of an oil disruption, each policy's appropriateness depends on the acceptability of its trade-off in light of its effect on the federal deficit.

We also found that both of the targeted programs (LIHEAP and EITC) could potentially offset an oil disruption's impact on low-income households. However, their effectiveness could be limited by eligibility requirements and funding levels. For example, if LIHEAP had been used in 1983 to assist low-income households (those with incomes less than 125 percent of the poverty line), only about 50 percent of those households would have been covered by the program.[4] Only about half of the households would have been covered, primarily because of funding levels, which limit the number of households receiving assistance, and to a lesser extent the state eligibility requirements. Further, the formula used under LIHEAP to provide funds to states would need to be revised to account for increases in motor fuel expenses that low-income households would experience.

Similarly, the eligibility requirements of the EITC program (which restrict it to individuals who are the head of a household with a dependent child and who file a joint return if married) limit benefits to about one-third of low-income households. Therefore, in order for the EITC to be an effective response policy, its current eligibility requirements may need to be changed. In addition, for individuals to benefit quickly from the EITC, they would have to apply for advance payment. In recent years, however, only about one-tenth of one percent of the EITC refunds have been paid out in advance. Without advance payments, households would not receive the benefits of the EITC until they filed their tax returns, which could be as long as 1 year after the impact of a disruption.

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[4]This example reflects the most recent published data available from the Department of Health and Human Services.

Administrative Considerations of the Policies GAO Analyzed

From an administrative standpoint, it could take about 1 to 3 months to implement most fiscal policies once the necessary legislation is passed. Because of this relatively short time frame, legislation providing standby authority to use the income tax cut, payroll tax reduction, or the EITC policies does not appear to be necessary. The use of general or LIHEAP block grants, however, may be impractical if legislation is not passed prior to a disruption. Substantially more time could be required to obtain state input in order to change the existing block grant formula or develop a new one. Previous changes to the block grant formula under LIHEAP have always been hotly debated because state funds are dependent on the formula. As a result, developing legislation for an emergency block grant program in the midst of an oil disruption could be delayed. Further, questions surrounding state agencies' authority to receive the additional funds would need to be resolved in some cases and plans developed for the distribution of an expanded or new block grant program. However, one feature of a block grant program that a tax policy would not have is that funds could be maintained within state governments to fund increased energy expenses for essential services such as fire department and the police.

In comparison to the fiscal policies, the monetary policy could be implemented in as little as 2 to 3 weeks and would not require legislative action. However, changes to monetary policy are under the control of the Federal Reserve Board, not the administration or the Congress.

Finally, we recognize that some of the changes we analyzed would, in some instances, alter the character of a given program. For example, the EITC was originally intended to assist a narrowly defined segment of households. Broadening this program into an economic response policy would, therefore, be a departure from its original intent. Similarly, the changes to payroll taxes we simulated would violate the tradition of equal employer-employee tax burdens under social security and would also require adjustments to the funding of the social security, railroad retirement, and unemployment insurance programs, which are currently financed through this tax. However, in the past the Congress has rejected proposals to fund these programs by other means.

Block Grants Appear to Need Standby Authority to be Effective

On the basis of our analysis, if the option of using a block grant program or LIHEAP as economic response policy is to be left open, legislation would appear to be needed to provide for standby authority prior to a disruption. If standby legislation is not in place, a substantial amount of time could be needed to agree on formula changes as well as funding levels once a disruption occurs. Therefore, timely assistance may be delayed. Also, if the LIHEAP program is to be an option for distributing federal energy emergency assistance funds, the development of an additional formula to take motor fuel use into account may be needed. Such a change would allow states to maintain existing LIHEAP funds, which are used primarily for home heating assistance, and to receive additional funds for motor fuels in an energy emergency.

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Our work was performed in accordance with generally accepted government auditing standards. The views of directly responsible officials were sought during the course of our work and are incorporated in the report where appropriate. We did not, however, request official agency comments on a draft of this report. As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the date of issuance.

Sincerely yours,

J. Dexter Peach
Director

BRIEFING DOCUMENT ON GAO's ANALYSIS OF THE BENEFITS AND LIMITATIONS OF ECONOMIC POLICY RESPONSES TO AN OIL SUPPLY DISRUPTION

PREPARED AT THE REQUEST OF SENATOR BILL BRADLEY

REASONS FOR CONSIDERING ECONOMIC RESPONSE POLICIES TO AN OIL DISRUPTION

- PREVIOUS OIL SUPPLY DISRUPTIONS, SUCH AS THE 1973-74 ARAB OIL EMBARGO AND THE 1979 IRAN OIL PRODUCTION SHUTDOWN, HAVE RESULTED IN HIGHER INFLATION, UNEMPLOYMENT, AND REDUCED ECONOMIC GROWTH.

- DISRUPTIONS ARE GENERALLY UNANTICIPATED AND CAN, THEREFORE, CAUSE DAMAGE TO THE ECONOMY BEFORE AN ECONOMIC RESPONSE POLICY CAN BE PUT INTO EFFECT.

- THOSE HURT MOST BY RAPIDLY RISING OIL PRICES COULD BE LOW-INCOME HOUSEHOLDS BECAUSE THEY TEND TO SPEND A GREATER PORTION OF THEIR INCOME ON ENERGY-RELATED COSTS.

- QUESTIONS HAVE BEEN RAISED ABOUT THE COST, ADMINISTRATIVE PRACTICALITY, AND EFFECTIVENESS OF SUCH POLICIES.

INTRODUCTION

Oil supply disruptions, such as the 1973-74 Arab oil embargo and the 1979 Iran oil production shutdown, have caused considerable damage to the U.S. economy. This damage occurs when rapid increases in world oil prices produce high domestic inflation and unemployment, and reduce economic growth. Rapidly increasing oil prices not only damage the overall economy but also create an added hardship for low-income households, which spend proportionally more for energy than do other households.

A disruption in the supply of oil to the United States could result from a variety of circumstances, such as politically motivated production cutbacks or embargoes, as well as production shutdowns due to internal political or terrorist activities. Oil disruptions caused by such circumstances cannot generally be anticipated, but could nonetheless influence oil prices and the economy dramatically.

The general aim of an economic response policy would be to minimize the economic losses, either to the U.S. economy as a whole or to specific households, that would be caused by a disruption. The type of economic response policy to use would depend on the size of the oil disruption, the disruption's effect on oil prices, and the effect of increasing oil prices on the economy. For example, during a severe disruption causing widespread economic problems, an economy-wide response policy might be used. Yet, other disruptions, where the impact is felt primarily by low-income households, might be mitigated by a response policy targeted to those households. In some instances a combination of economy-wide and targeted policies might be appropriate.

THE CONGRESS HAS ASKED THE DEPARTMENT OF ENERGY FOR A CLEAR AND CONSISTENT STATEMENT OF ITS POLICY

- THE ENERGY EMERGENCY PREPAREDNESS ACT (EEPA) OF 1982 REQUIRED THE DEPARTMENT OF ENERGY (DOE) TO ANALYZE THE IMPACT OF A DISRUPTION ON THE U.S. ECONOMY AND CONSUMERS.

- IN 1984 THE HOUSE COMMITTEE ON GOVERNMENT OPERATIONS REQUESTED THE SECRETARY OF ENERGY TO PROVIDE MORE INFORMATION ON ECONOMIC RESPONSE POLICIES.

- LATER IN 1984 THE CHAIRMAN, SUBCOMMITTEE ON ENVIRONMENT, ENERGY, AND NATURAL RESOURCES OF THE HOUSE COMMITTEE ON GOVERNMENT OPERATIONS, REQUESTED THAT DOE PROVIDE ADDITIONAL INFORMATION IN ITS ECONOMIC RESPONSE POLICY.

DOE POLICY STATEMENTS TO THE CONGRESS

In 1982 the Congress, concerned with these problems and the potential need for an economic response policy to respond to them, passed the Energy Emergency Preparedness Act (EEPA). This act required the Secretary of Energy to analyze the impacts of a substantial oil disruption on the U.S. economy and consumers. DOE responded to the EEPA in an August 1983 report to the Congress entitled The Domestic Impacts of Reliance on Market Forces. This report stated that the administration's emergency economic response policy would be one that relies on the allocative mechanisms of the market, on use of the Strategic Petroleum Reserve (SPR), and on leaving current fiscal and monetary policies unaltered as opposed to modifying them to counter the economic effects of a disruption. The 1983 DOE report also concluded that changes in monetary policy would be inappropriate because they would add to the uncertainty that exists during a disruption. The report did not discuss the trade-offs involved with using different monetary policies.

In response to a request by the House Committee on Government Operations, the Secretary of Energy issued a follow-up report on emergency economic response measures on July 30, 1984. This report restated the administration's previous position and discussed DOE's current research on the household impacts of a disruption. The report also noted that options are being analyzed that could mitigate the impact of a disruption on consumers. The report concluded that no new programs or policies should be prepared in detail until a disruption actually occurs.

On September 13, 1984, at the request of the Subcommittee on Environment, Energy, and Natural Resources, Committee on Government Operations, for greater specificity and clarity regarding economic response policies, the Secretary of Energy provided testimony that generally restated the administration's commitment to a policy of market reliance. In addition, the Secretary suggested four targeted policy options involving the Earned Income Tax Credit (EITC) and the Low-income Home Energy Assistance Program (LIHEAP) that were being considered as ways of providing assistance to low-income households.

DOE's CURRENT POSITION ON AN ECONOMIC RESPONSE POLICY

- USE THE SPR AND RELY ON THE MARKET TO DETERMINE THE PRICE AND ALLOCATION OF CRUDE OIL.
- ON DECEMBER 20, 1984, DOE SUGGESTED A POSSIBLE TARGETED LIHEAP RESPONSE OPTION OR THE POSSIBLE MODIFICATION OF THE EITC.

DOE's ECONOMIC RESPONSE POLICY

On September 25, 1984, the Chairman of the House Committee on Government Operations requested that DOE provide more information on its economic response policy and questioned whether sole reliance on the market to allocate petroleum products would work without a policy to assist low-income individuals who would be hurt most by rising energy prices. In response, the Secretary of Energy stated in a December 20, 1984, letter that DOE had narrowed its low-income assistance plans to two options: modifying the LIHEAP and the EITC. DOE suggested a LIHEAP response along the following lines:

--no change in the existing allocation formula for the basic LIHEAP program,

--allocation of supplemental funding for home heating assistance under the basic LIHEAP allocation formula, and

--a new supplemental allocation formula that would reflect variations among the states in motor fuel costs.

DOE stated that these programs appeared appropriate for an emergency response and that modifications to these programs would probably be more effective than creating a new program. As of July 31, 1985, DOE told us that it does not plan to analyze these two policies in more detail or propose changes to the Congress.

ACCORDING TO GAO's EVALUATION DOE HAS NOT:

- SUPPORTED ITS POSITION (THAT ECONOMY-WIDE POLICIES ARE INAPPROPRIATE AND THAT NO NEW TARGETED PROGRAM OR POLICIES SHOULD BE PREPARED IN DETAIL UNTIL A DISRUPTION OCCURS) BY THE ANALYSES IN ITS 1983 AND 1984 REPORTS.

- ADDRESSED AND RESOLVED CURRENT LIMITATIONS WITH REGARD TO USING THE LIHEAP OR EITC AS EMERGENCY ECONOMIC RESPONSE POLICIES.

- INITIATED LEGISLATION OR ACTIONS THAT WOULD FURTHER DEVELOP THESE OR OTHER POLICIES AS VIABLE ECONOMIC RESPONSE POLICIES.

DOE HAS PERFORMED ONLY LIMITED ANALYSIS

DOE's analysis does not support its position that economy-wide economic response policies (alterations in monetary and/or fiscal policy within this market reliance context) are inappropriate. DOE's analysis of these policies indicates that there are trade-offs between the desirable and undesirable effects (e.g., reducing the recessionary effects of a disruption versus reducing the inflationary effects). Yet, DOE concluded that these policies were inappropriate without demonstrating that the market, with existing fiscal and monetary policies, would work more effectively than the policies. In addition, DOE's analysis of targeted response policies (LIHEAP and the EITC) remains incomplete. DOE has yet to resolve problems regarding the number of low-income households affected, the economic impact on the low-income households that are affected, their administrative practicality, or their costs. As of July 31, 1985, DOE told us that it does not intend to propose any legislation that would modify these programs for a low-income economic response policy.

GAO ANALYZED SEVERAL ECONOMY-WIDE RESPONSE POLICIES:

- A CUT IN PERSONAL INCOME TAXES COMBINED WITH AN INCREASE IN FEDERAL ASSISTANCE TO LOW-INCOME HOUSEHOLDS WITHOUT INCOME TAXES WITHHELD,
- A REDUCTION IN EMPLOYERS' PAYROLL TAXES,
- A GENERAL INCREASE IN FUNDING FOR A NEW FEDERAL BLOCK GRANT PROGRAM TO STATE GOVERNMENTS, AND
- A MONETARY POLICY THAT INCREASES THE MONEY SUPPLY GROWTH RATE.

THE ECONOMY-WIDE RESPONSE POLICIES GAO CONSIDERED

We evaluated four economic response policies aimed at influencing the performance of the entire domestic economy. These policies are referred to as "economy-wide" policies because their purpose is to affect the performance of the economy at large as measured by macroeconomic variables such as the rates of inflation, unemployment, and growth of the Gross National Product (GNP). The economy-wide policies we evaluated are:

--A combined policy consisting of a cut in personal income taxes for all taxpayers, supplemented with an increase in federal assistance to low-income households that do not have income taxes withheld. This policy seeks to mitigate the recessionary effects of a disruption by restoring household purchasing power lost as a result of a disruption. Reducing personal income taxes by lowering federal withholding rates would, once in effect, increase paychecks received by taxpayers. Increases in direct federal assistance would also act to offset losses in purchasing power.

--A reduction in employers' payroll taxes. This policy is aimed, not at restoring lost household purchasing power, but at offsetting the sudden rise in business' costs of production that would follow an oil disruption. A payroll tax reduction would reduce employer labor costs, acting to offset the added costs of production caused by higher energy prices.

--A general increase in appropriations for a new federal block grant program to state governments. Block grants have been proposed as a way the federal government could provide emergency energy assistance to states. The use of block grant funds can be broadly or narrowly defined, leaving a greater or lesser degree of discretion to the states.[1]

--A monetary policy that increases the money supply growth rate. This policy would tend to offset the economy-wide recessionary impacts of increasing oil prices by putting downward pressure on interest rates, which in turn would allow firms and households to borrow more easily, stimulating investment and consumer spending.

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[1]Our analysis assumes that states would be required to spend the increased block grant funding on new or increased services and not for reduced taxation.

GAO ANALYZED TWO TARGETED RESPONSE POLICIES:

- AN INCREASE IN LIHEAP AND
- AN INCREASE IN THE EITC

THE TARGETED RESPONSE POLICIES GAO CONSIDERED

We evaluated the two targeted policies the administration is currently considering--LIHEAP and the EITC. These policies were termed "targeted" policies because they are designed to affect only low-income households. They were evaluated on the basis of their effectiveness at offsetting the lost purchasing power of the low-income households. Both policies are briefly explained below.

--An increase in funding for the LIHEAP. This policy is an example of a targeted block grant that could be used for emergency energy assistance to low-income households. It provides aid to pay for home heating and cooling, weatherization, and energy-related emergencies. The funding level for this program could be increased, and/or the eligibility requirements could be relaxed, to provide increased assistance during a disruption.

--An increase or expansion of the EITC. The EITC is a targeted policy designed to transfer federal funds to the "working poor." Current law provides a maximum credit of $550 for eligible workers with incomes up to $11,000.[2] This credit could be increased, and/or the eligibility for the credit expanded, as a means of offsetting individual tax liability for low-income households. Individuals whose credit is greater than their tax liability would be eligible for a refund payment. This refund is generally received once their return has been filed and processed, but workers may apply for advanced payment of their refund.

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[2]Beginning January 1, 1985, the income limitation was increased from $10,000 to $11,000.

THE METHODOLOGY GAO USED

- IN EVALUATING EACH OF THE RESPONSE POLICIES, WE CONSIDERED THEIR EFFECTIVENESS IN OFFSETTING THE ECONOMIC EFFECTS OF A DISRUPTION, THE NUMBER OF HOUSEHOLDS THE POLICIES WERE INTENDED TO AFFECT, THEIR ABILITY TO BE ADMINISTERED QUICKLY, AND THEIR NET EFFECT ON THE FEDERAL DEFICIT.

- IN ORDER TO ANALYZE THE ECONOMY-WIDE POLICIES, WE MODELED THE FISCAL POLICIES AT A LEVEL THAT RESTORED THE APPROXIMATE LOSS OF HOUSEHOLD PURCHASING POWER CAUSED BY A SEVERE DISRUPTION. THE OIL PRICE INCREASE WE MODELED IN ANALYZING THESE POLICIES WAS NOT INTENDED TO PREDICT THE EFFECTS OF AN ACTUAL DISRUPTION BUT WAS USED BECAUSE IT WAS LARGE ENOUGH TO SHOW THE RELATIVE EFFECTIVENESS OF THE POLICIES.

- THE COST OF USING THE TARGETED POLICIES COULD BE LOWER THAN THE ECONOMY-WIDE POLICIES BECAUSE ONLY LOW-INCOME HOUSEHOLDS WOULD BENEFIT DIRECTLY.

GAO's METHODOLOGY

In analyzing the economy-wide fiscal policies, we modeled an income tax cut that restored the approximate loss of household purchasing power caused by a disruption that increased oil prices by an average of about 70 percent the first year. The net effect of this policy on the federal deficit was about a $34-billion increase annually over the 3-year period analyzed, with a constant money supply growth rate. To make comparisons with other fiscal policies, we analyzed them with the same net budgetary cost. When accompanied by an increase in the money supply growth rate, the net budgetary cost of each policy was reduced to about $13 billion. In our short-term analysis, the monetary policy by itself had a positive net effect on the federal deficit, but it cannot be directly compared to the fiscal policies. We did not perform a sensitivity analysis of different-size disruptions, nor did we evaluate policies designed to restore less than 100 percent of the lost household purchasing power caused by the disruption we assumed. However, each policy could be implemented on a larger or smaller scale, which would result in increased or decreased costs and benefits.

In evaluating these policies we selected three established macroeconomic models to ensure greater objectivity: the Data Resources, Inc. (DRI) Quarterly Model, the Wharton Quarterly Model, and the economic/energy model developed by Knut Mork of Vanderbilt University. The results presented in this report are for the DRI model, which we found to be representative of the general direction of the other models as well.

To assess the possible cost of expanding the targeted policies to offset the financial impact of a severe disruption on low-income households, GAO used a disruption scenario developed with the use of DOE (a doubling of oil prices) and census bureau data. Under such a scenario it could cost about $3.6 billion for LIHEAP and $4.9 billion for the EITC, if these programs are expanded to offset 100 percent of the lost household purchasing power during the first year.[3] These costs do not reflect administrative expenses.

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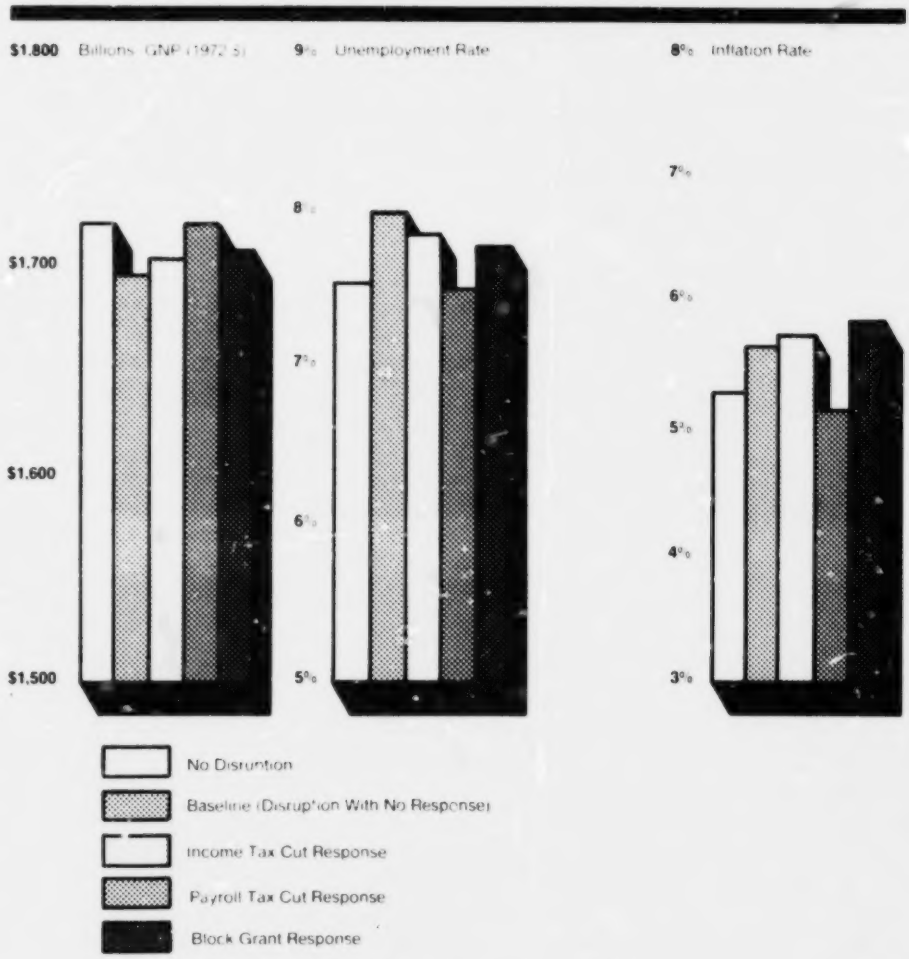
[3]The cost of these two programs cannot be compared directly because states usually set income criteria for LIHEAP activities in the range of 120 to 129 percent of the poverty line, which results in including some households with incomes above $11,000, while the EITC is restricted to those with incomes below $11,000.

MOST OF THE FISCAL ECONOMIC RESPONSE POLICIES TRADE-OFFS

- GAO's ANALYSIS INDICATES THAT SEVERAL ECONOMY-WIDE POLICIES COULD OFFSET, TO VARYING DEGREES, SOME OF THE EFFECTS OF AN OIL DISRUPTION, BUT WOULD INVOLVE A TRADE-OFF BETWEEN CONTROLLING INFLATION AND MAINTAINING ECONOMIC ACTIVITY AND EMPLOYMENT (AS SHOWN IN FIGURE 1). IN ADDITION, THE POLICIES INVOLVE OTHER TRADE-OFFS BETWEEN THEIR COSTS AND THEIR ADMINISTRATIVE PRACTICALITY.

Figure 1 Economic Impact of Fiscal Policies Compared with a Baseline and No-disruption Case (Average Impact Over 3 Years Following the Disruption (1985-87))



Source: GAO analysis using DRI Quarterly Macroeconomic Model.

GAO'S ANALYSIS OF FISCAL POLICY RESPONSES

On the basis of GAO's analysis, each of the economy-wide policies offset the recessionary impact of the disruption, but to varying degrees. Figure 1 illustrates the effects of the three fiscal policies on GNP and unemployment in comparison with a baseline in which no policy action is taken, and with a "no-disruption" case representing the projected state of the economy in the absence of a disruption.

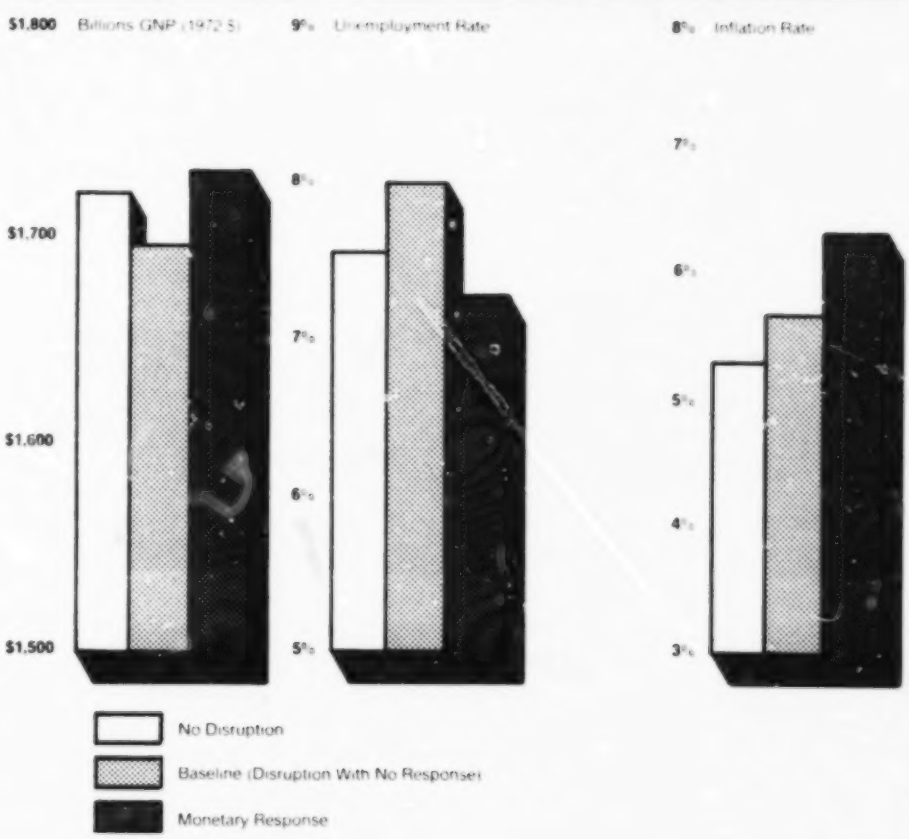
As shown in figure 1, each of the three fiscal policies increases GNP above the baseline with the payroll reduction having the greatest effect. Neither the block grant policy nor the income tax cut had a large impact relative to the baseline. Figure 1 shows similar results with respect to the impact on unemployment. The three fiscal policies reduce the unemployment rate relative to the baseline, with the payroll tax measure being the most effective and the income tax measure the least effective.

GAO's analysis shows that most of the economy-wide policies that increased economic growth and employment did so at the expense of adding to the inflation already caused by the oil disruption. Figure 1 also illustrates the inflationary effects of the three fiscal policies in comparison with the baseline and the no-disruption case. The block grant measure produced an inflation rate slightly higher than the baseline projection, while the income tax cut had very little effect. The payroll tax reduction, which was most effective at offsetting the recessionary impact of the disruption, actually reduced inflation. It should be noted that GAO's analysis estimates only the short-run economic effects of these policies, while longer term inflation caused by some of these policies may be significant.

MONETARY POLICY ALSO SHOWS A TRADE-OFF

- GAO's ANALYSIS INDICATES THAT THE MONETARY POLICY ANALYZED COULD OFFSET SOME OF THE EFFECTS OF AN OIL SUPPLY DISRUPTION BUT AT THE EXPENSE OF INCREASED INFLATION (AS SHOWN IN FIGURE 2).

Figure 2 Economic Impact of Monetary Policy Compared with a Baseline and No-disruption Case (Average Impact Over First 3 Years Following the Disruption (1985-87))



SOURCE: GAO ANALYSIS USING DRI QUARTERLY MACROECONOMIC MODEL.

CAO'S ANALYSIS OF A MONETARY POLICY RESPONSE

GAO's analysis of a monetary policy that increased the rate of growth of the money supply showed that the policy effectively reduced the impact of the disruption on GNP growth and unemployment, but that it increased the inflationary impact. Figure 2 shows that the monetary policy increased GNP growth relative to the baseline. Figure 2 shows similar results with respect to the unemployment rate, which was lower than the baseline or no policy response.

Figure 2 shows the results of our comparison of the inflation rate under the monetary policy response with the baseline and no-disruption projections. These results show that the monetary policy produced inflation considerably higher than the baseline over the 3-year period analyzed.

GAO also analyzed the effects of combining each of the three economy-wide fiscal policies with an increasing money supply growth rate. We found that the effectiveness of the fiscal policies in mitigating the disruption's impact on GNP and employment was increased and the budgetary cost of all three fiscal policies was reduced substantially. The net budgetary cost was reduced from an annual average of about $34 billion with no change in monetary policy, to about $13 billion with an increase in the money supply growth rate.

These improvements in the fiscal policies, however, were achieved at the cost of added inflation. In addition, there could be longer term inflationary effects, beyond our analysis, of an increase in the money supply growth rate. While our analysis measured the effects only over a 3-year period, the Federal Reserve Board (FRB) considers the longer term effects of increased inflation when setting monetary policies.

TARGETED POLICIES ARE CURRENTLY LIMITED BY ELIGIBILITY REQUIREMENTS AND FUNDING

- THE LIHEAP:
  - --THE CURRENT FORMULA LIMITS THE USE OF FUNDS PRIMARILY TO HEATING AND COOLING AND DOES NOT ADDRESS RISING MOTOR FUEL COSTS AND
  - --CURRENT FUNDING ALLOWS ONLY ABOUT HALF OF THESE LOW-INCOME HOUSEHOLDS TO PARTICIPATE.
- THE EITC:
  - --PROGRAM REQUIREMENTS LIMIT THE CREDIT TO ABOUT ONE-THIRD OF ALL HOUSEHOLDS WITH INCOMES UNDER $11,000 AND
  - --TAX RETURN DATA SHOW THAT IN RECENT YEARS ONLY ABOUT ONE-TENTH OF ONE PERCENT OF THE CREDIT HAS BEEN PAID OUT IN THE FORM OF ADVANCE PAYMENT. WITHOUT ADVANCE PAYMENT, THESE HOUSEHOLDS MAY NOT BE ABLE TO MEET THEIR RISING ENERGY EXPENSES.

TARGETED POLICIES

LIHEAP, which is administered by the Department of Health and Human Services, primarily provides aid to pay for home heating and cooling, weatherization, and energy-related emergencies. LIHEAP was reauthorized under Public Law 98-558 at the level of $2.14 billion for fiscal year 1985.

As an economic response policy, LIHEAP is limited in two ways. First, if, for example, this program had been used in 1983 to assist low-income households, only about 50 percent of these households would have been covered by the policy. This limitation is primarily due to funding levels, which limit the number of households receiving assistance, and to a lesser extent to state eligibility requirements. State eligibility requirements vary but include categories such as income, available assets, or the inclusion of an elderly or handicapped person in the household. Second, the formula used under LIHEAP to provide funds to states does not account for increases in motor fuel expenses, which are expected to be affected most by a disruption. Under the current formula, such costs would not be reimbursable to low-income households.

Similarly, the EITC program is currently limited to about one-third of low-income households (defined under this program as those with incomes below $11,000). If the EITC is to be effective as a response policy, the current eligibility requirements (which restrict it to individuals who are the head of a household with a dependent child and who file a joint return if married) may need to be changed. In addition, for workers to benefit quickly from the EITC, they would have to apply for advance payment. In recent years, however, only about one-tenth of one percent of the EITC refunds have been paid out as advance payments. Without advance payments, households would not receive the benefits of the EITC until they filed their tax returns. This is important because low-income households would need this money to meet rising energy costs as they occur. Thus, in order for this policy to be effective, in addition to changing the eligibility requirements, a public education campaign or similar effort to inform workers of the advance payment procedure would probably be necessary.

ADMINISTRATIVE PRACTICALITY OF THE ECONOMIC RESPONSE POLICIES

- 1 TO 3 MONTHS TO IMPLEMENT THE FISCAL POLICIES ONCE THE NECESSARY LEGISLATION IS PASSED.
- WITH THE EXCEPTION OF A BLOCK GRANT PROGRAM, LEGISLATION AUTHORIZING THE USE OF THESE POLICIES, PRIOR TO A DISRUPTION, MAY NOT BE NEEDED.
- A BLOCK GRANT PROGRAM APPEARS TO WARRANT ADVANCE LEGISLATION BECAUSE STATES ARE DIRECTLY INVOLVED IN THIS PROGRAM (i.e. STATES RECEIVE FUNDS ON THE BASIS OF THE BLOCK GRANT FORMULA), AND A SIGNIFICANT AMOUNT OF TIME MAY BE REQUIRED FOR STATE AGENCIES TO RESOLVE QUESTIONS INVOLVING AUTHORITY TO RECEIVE ADDITIONAL FUNDS AND PLAN FOR THEIR DISTRIBUTION.
- 2 TO 3 WEEKS TO IMPLEMENT THE MONETARY POLICY AND NO LEGISLATIVE ACTION IS NECESSARY. (HOWEVER, MONETARY POLICY IS NOT UNDER THE CONTROL OF THE PRESIDENT OR THE CONGRESS.)

ADMINISTRATIVE PRACTICALITY OF THE FISCAL AND MONETARY POLICIES

From an administrative standpoint, it could take about 1 to 3 months to implement the fiscal policies once the necessary legislation is passed. For example, time would be needed to adjust tax withholding tables, reprint forms and mail these to households. However, in the case of block grants, if legislation is not passed prior to an oil disruption, their use may be impractical because substantially more time could be required for state input and planning before implementation. Not only would federal legislation be necessary to change the existing block grant formula, but questions surrounding state agencies' authority to receive additional funds would also need to be resolved in some cases. According to a 1983 report by the National Governor's Association entitled State and Local Uses of Emergency Block Grants During A Petroleum Supply Disruption, states have general authority to use funds for specific purposes, but about half of the surveyed states indicated authority was limited by legislative approval. States would also need time to devise procedures to plan for the distribution of additional funds. Other policies require only federal legislative action and do not directly involve states. Thus, additional time would not be needed. However, a feature of a block grant program that a tax policy would not have is that funds could be maintained within state governments to fund increased energy expenses for essential services such as the fire department and police.

In comparison to the fiscal policies, the monetary policy could be implemented in as little as 2 to 3 weeks. This time would be needed for the Federal Reserve Board to decide on a new money supply growth rate and put it into effect. Because of this and the fact that monetary policy changes do not require legislative action, a monetary policy response could be put into effect considerably quicker than any of the fiscal policies we analyzed. However, changes in monetary policy are under the control of the Federal Reserve Board and are weighed against broader economic considerations.

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